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*Secretary's  
ofc.*

Ms. Donna Searcy  
Secretary  
The Federal Communications Commission  
1919 M Street, NW  
Washington, DC 20554

September 3, 1993

RECEIVED

SEP 24 1993

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Subject: Cable Equipment Compatibility, Off-Premises and On-Premises  
FCC Docket MM 92-263, Continued Input

Dear Ms. Searcy:

I enclose a copy of a letter dated September 3, 1993, which I have provided to all of the Commissioners.

This is being provided to your office in case such a contact would be considered to be an "ex parte" contact. Please advise if you do not wish to receive copies of material of this type.

Very truly yours,



O. D. Page, P.E.

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O.D. Page, P.E. *Professional Engineers & Affiliates*

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September 3, 1993

The Federal Communications Commissioners  
1919 M Street, NW  
Washington, DC 20554

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Commissioners: The Honorable Reed Hundt, Nominee/Chairman  
The Honorable James H. Quello  
The Honorable Sherrie P. Marshall  
The Honorable Andrew C. Barrett  
The Honorable Ervin S. Duggan

SEP 24 1993

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Subject: Cable Equipment Compatibility, Off-Premises and On-Premises  
FCC Docket MM-92-263, Continued Input

I enclose a copy of two pieces with comments:

1. "Hardware '93 and Beyond" from the June 7, 1993 issue of *Cable World*, page 22 by Carl Weinschenk: This piece, calling "Interdiction — the "Harold Stassen of cable technology" (column 2, first bulleted paragraph) is indicative of the Cable Industry's attitude (making it look ridiculous—think of the word). I don't agree that it's only good for a broadcast tier, but the point is that as soon as some of this stuff gets out there we'll learn exactly what it will do and what some of its benefits are. And by the way, using it for a broadcast-only channel doesn't help alleviate the "pirating" situation one single bit.
2. "U S West Picks S.A., Others for Network Rebuild Project" from the June 21, 1993 issue of *Cable World* (page number not shown, unfortunately), also by Mr. Weinschenk. In column 2 under "Interdiction", the comment "long a cable industry bridesmaid" is another attempt to ridicule this process so that the Operators can keep their monopoly on in-home equipment.

We're all going to be looking at these S.A. interdiction systems, as well of course as those that may be developed by Phillips, the competing "mask" technology.

By the way, there is another company (AM Communications) that has just come out with an alternative system. Their off-premises system is called "HomeGuard". A copy of that information is attached as well.

Very truly yours,



O. D. Page, P.E.

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cc: Ms. Donna Searcy  
Mr. John Wong  
NCTA  
EIA  
Cable TV Labs

# Hardware '93 and Beyond

*Vendors say rereg, telecoms advancements will spawn opportunity*

BY CARL WEINSCHENK

**C**able reregulation has battered cable systems nationwide, but equipment vendors? They're gearing up for the opportunities that reregulation is sure to bring about.

"It certainly is a setback for cable to have this reregulation," says C-Cor Electronics Inc. chairman Richard Perry. "(But) cable operators have to improve their technology and move forth in spite of those difficulties."

Adds Antec Network Service vice president Jack Bryant: "The year started out real strong. There is kind of a lull at this particular time. I suppose that there is some regrouping because of the regulations. The market will continue to be competitive whether it is regulated or not."

The cause for optimism: new business created, oddly enough, by reregulation, and a blurring of the lines that used to separate television, telephony and other segments of the telecommunications universe.

"Reregulation in and of itself is bad policy and not good for the (cable) industry and its suppliers," says David Robinson, director of Jerrold Communications' Cableoptics division. "But the negative impact of these tactical legal changes pales in contrast to the vast expansion of the strategic landscape in broadband communications."

Indeed, there appears to be new life in many corners of the industry:

■ The pledge by several major MSOs not to pay retransmission-consent fees could result in huge purchases of A/B switches needed to let televisions accept off-air signals.

Continental Cablevision, for instance, released a request for proposals in January, even though the document could very well have been more of a negotiating message to broadcasters than it was a call to manufacturers. To date, no contracts have been signed, and A/B switch makers are sending mixed signals on whether sales are up.

■ The must-carry rules may become a gold mine for filter and trap makers.

"We've sold a lot of tier filters, a lot," says Fred Whiting, the president of SOS Inc., which is known as Gameco Industries.

He says sales are up 50 percent over

last year's and that the company has a backlog of orders extending about six weeks.

■ Interdiction — the Harold Stassen of cable technology — could finally become a winner.

"It's very, very likely you could use interdiction to control a broadcast-only tier, for example," says Gary Trimm, president of Scientific-Atlanta Inc.'s subscriber systems division.

In early February, the company signed a \$3.5-million deal with Cablevision Systems Corp., which plans to roll out interdiction in 40 systems.



Manufacturers also are using their ingenuity in reregulation's wake.

S-A is touting "virtual channels" — a function that its 8600X converter can perform — a task that conceiv-

ably could alleviate some channel number/pricing pressures, according to the company.

The concept centers on a datastream that can carry sports scores, stock prices and other material that can be downloaded to the unit and made into a text "channel" without sacrificing a 6 MHz slot and incurring more programming costs.

■ General Instrument Corp.'s Jerrold division is negotiating with television set manufacturers in the Orient to create the stripped-down picture tube which would accommodate its "Joey," a module with customized circuitry to handle a number of consumer services, such as picture-in-picture. If it works, the concept could eliminate many electronic component compatibility problems.

## Revenue streams

Reregulation also could focus more attention on hardware associated with the cable industry's unregulated segments.

For example, telephony and computer-related businesses could become even more attractive alternate revenues streams in the wake of new caps being placed on basic service revenue streams.

In the near term, segments such as pay-per-view, multiplexed premium channels, and advertising insertion may

become more popular. In the longer term, reregulation, competition and new partnerships may push operators more toward not-yet proven businesses such as video-on-demand and near-video-on-demand.

Indeed, linking and expanding cable systems will create a flood of new services, including electronic program guides, personal communication services, tele-medicine, tele-commuting and tele-education.

The bottom line: Basic cable will no longer be operators' main revenue stream.

"Some of the companies that we have spoken with have agreed that although (reregulation) has an immediate negative impact on potential revenue stream, it is increasing the probability and the rate at which they move into related ancillary services," says Jerry Conn Associates Inc. president Tom Carbaugh.

Tele-Communications Inc., for one, is stepping up its rebuild plans to the tune of \$2 billion in the next four years — hardly a sign of an industry in decline.

Likewise, Continental Cablevision's move to link its New England region headends will generate another wave of business.

## Development

That push to develop more cutting-edge technology has been accompanied by an increasingly sophisticated world view, according to John Holobinko, vice president of marketing and strategic planning at American Lightwave Systems, a Continental project vendor.

"What I think we are seeing is that the MSOs that are spending are doing so with a very logical plan for the future and are much more disciplined in the methods of acquisition," he says. "They are looking to reduce the total number of vendors they are going with ... They are going away from a deal-to-deal-to-deal situation and going with those with which they can have a more long-term relationship."

Take the just-announced Time Warner Entertainment/U S alliance. Many cable industry observers, who expect more announcements like it soon, view it as a solid call to develop and perfect a new generation of equipment.

See Hardware on page 180

## Vendors: Rereg, Telecoms Advancements Will Spawn Opportunity

Hardware from page 22

They also say traditional cable vendors can play a major role in this process, evidenced by the slew of companies exhibiting multimedia technologies at this week's National Show in San Francisco.

SA, for example, last week announced it will use the show to introduce a digital storage and retrieval system — a key element of an interactive system.

Cable industry vendors also could very well find more business among regional Bell operating companies and other telephony service providers.

U S West's request for information to rebuild its in-region network went to several traditional cable suppliers. Nynex is shopping a similar request, while other huge telephone companies, such as Ameritech and Pacific Bell,

probably aren't far behind.

As other industries begin to view cable's coaxial cable road into the home as a first-rate conduit, the companies that design and service it will continue to win more attention.

### Buyouts

Finally, cable equipment manufacturers probably will prosper if buyouts become a model for forging cable/telco relationships.

If, for instance, cable operators want to get the kind of money that Southwestern Bell is paying for two Hasuer Communications systems in the Washington, D.C., suburbs — that is \$650 million, or \$2,900 a subscriber — they'll have to keep their systems in good repair. Again, that means more business for vendors.

"There have been quantum leaps in technology, including digital video, silicon microprocessors and fiber optics, combined with a worldwide recognition that the future platform for telecommunications is, as cable has said all along, broadband," says Jerrold's Robinson. "So the big players have looked at this little broadband pond and said, 'I'm going to jump in.' Luckily, the pond is growing by leaps and bounds and is going to be a huge ocean with plenty of room for everybody."

Although reregulation has stirred its share of confusion and resentment in the cable industry, equipment manufacturers aren't forecasting doom.

"Like most things in life, it has its good side and its bad side," says Jerry Conn Associates' Carbaugh.

## NEWS

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# U S West Picks S-A, Others For Network Rebuild Project

BY CARL WEINSCHENK

In another development that reflects the move toward telecommunications industry convergence, U S West Communications announced last week it's negotiating with Scientific-Atlanta Inc. to supply the equipment that will be used in the telco's first step toward rebuilding its networks that serve 25 million customers in a 14-state region in the West.

Although many important details of the discussions were still unclear, S-A essentially will supply video-transmission elements that U S West will test.

Configured in fiber-to-the-serving area architecture, the equipment will include pass band filters, power inserters, taps, interdiction devices, line amplifiers and passive elements, according to Tom Freeberg, U S West Communications' director of network planning.

AT&T Network Systems and DSC Communications Corp. will supply the network's telephony components.

In February, U S West announced it would rebuild its network to support video dial-tone businesses and that a 10,000-customer field test will begin early next year in Omaha, Neb. If it pans out, the telco is planning initial rollouts that could pass 100,000 homes by the end of 1994 and add 500,000 homes a year beginning in 1995. Freeberg said the company will soon identify a second test city.

The S-A, AT&T and DSC technologies initially will be tested at U S West's laboratory in Boulder, Colo., and deployed in the Omaha test.

The deal could be a major coup for the three manufacturers, who now appear to have the inside track on contracts for the \$13-billion-plus rebuild.

## Successful companies

Indeed, Freeberg said the three companies probably will be the vendors for the entire project: "Outside of totally unforeseen problems, these are the companies that are going to make us successful in this area for the next several years."

U S West said AT&T will supply SLC 2000 access systems, which feature DDM-2000 Sonet network multiplexing equipment. Freeberg said Antec, which jointly develops and markets AT&T

products, isn't part of that contract. Optical Networks International, which reportedly received the original request for information on the project, is an Antec company.

DSC will contribute a TR-303 Sonet-based Litespan 2000 digital loop carrier system and a Starspan fiber-in-the-loop system.

U S West's in-region project is separate from the recently announced full service network partnership it has forged with Time Warner Cable.

If S-A's equipment is chosen for the U S West network project, it would provide another example of how close the telephone and cable industries are growing.

U S West — whose original request for information on the project went to several traditional cable vendors — is planning to implement many cable industry design elements, including coaxial cable into the home and fiber-to-the-serving area architecture.

## Interdiction

One intriguing element of last week's announcement: an interdiction test.

The technology, long a cable industry bridesmaid, has been the focus of renewed interest thanks to its potential to satisfy 1992 Cable Act technology compatibility demands.

U S West, however, appears to be as reticent about it as the cable industry.

"We're going to fully outfit our trial areas with interdiction hoping in the future we won't need to use it," Freeberg said. "We think it's expensive, but are prepared to use it if we've got to do it."

Freeberg said much of the equipment the telco will order from S-A already has been developed. One exception is a sophisticated modulator which will require some "tweaking" of existing equipment, he added.

U S West has asked the FCC for special temporary authority to begin work on the Omaha test — an interim step toward filing a 214 application for Omaha.

Named for its section of the FCC's recent video dial-tone ruling, telcos need a section 214 permit to build video dial-tone networks.

A U S West spokesman said the company will file its 214 application this week. Freeberg said the telco expects to receive special temporary authority in the next few weeks.